

---

**Specical 510(K) - SUMMARY**

**Eagle Software for the HOLOGIC® QDR® X-Ray Bone Densitometers**

**Submitter Name:** Hologic, Incorporated

**Submitter Address:** 35 Crosby Drive  
Bedford, MA 01730

**Contact Person:** Nandini Murthy, Regulatory Scientist

**Phone Number:** (781) 999-7300

**Fax Number:** (781) 280-0662

**Date Prepared:** August 9, 1999

**Device Trade Name:** Eagle software for Hologic® QDR® X-Ray Bone Densitometers

**Device Common Name:** X-Ray Bone Densitometer

**Predicate Device:** Currently commercialized Hologic® QDR® X-Ray Bone Densitometers

**Device Description:** The Eagle software operates with the Microsoft® Windows® 98 operating system and is a direct evolution from the software that is currently shipping with the QDR X-ray bone densitometers.

**Intended Use:** The intended use of the Eagle software for the Hologic QDR X-Ray Bone Densitometers is estimation of BMD.

\* BMD = Bone Mineral Density



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

SEP 3 1999

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

Ms. Nandini Murthy  
Regulatory Scientist  
Hologic, Inc.  
35 Crosby Drive  
Bedford, MA 01730

Re: K992677  
Eagle Software for Hologic® QDR®  
X-Ray Bone Densitometers  
Dated: August 9, 1999  
Received: August 10, 1999  
Product Code: 90 KGI  
Regulatory Class: II (two)  
21 CFR 892.1170

Dear Ms. Murthy

We have reviewed your Section 510(k) notification of intent to market the device referenced above and we have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (Premarket Approval), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 895. A substantially equivalent determination assumes compliance with the Current Good Manufacturing Practice requirements, as set forth in the Quality System Regulation (QS) for Medical Devices: General regulation (21 CFR Part 820) and that, through periodic QS inspections, the Food and Drug Administration (FDA) will verify such assumptions. Failure to comply with the GMP regulation may result in regulatory action. In addition, FDA may publish further announcements concerning your device in the Federal Register. Please note: this response to your premarket notification submission does not affect any obligation you might have under sections 531 through 542 of the Act for devices under the Electronic Product Radiation Control provisions, or other Federal laws or regulations.

This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801 and additionally 809.10 for in vitro diagnostic devices), please contact the Office of Compliance at (301) 594-4613. Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers Assistance at its toll-free number (800) 638-2041 or (301) 443-6597, or at its internet address "<http://www.fda.gov/cdrh/dsma/dsmamain.html>".

Sincerely yours,

CAPT Daniel G. Schultz, M.D.  
Acting Director, Division of Reproductive,  
Abdominal, Ear, Nose and Throat,  
and Radiological Devices  
Office of Device Evaluation  
Center for Devices and  
Radiological Health

Enclosure

Indications for Use Statement

The intended use of the Hologic Eagle Software Option is to estimate the projected bone mineral density (BMD, in  $\text{g/cm}^2$ ) and the Bone Mineral Content (BMC, in g) at various anatomical sites using the Hologic QDR<sup>®</sup> X-Ray Bone Densitometers.

David H. Beggs  
(Division Sign-Off)  
Division of Reproductive, Abdominal, ENT,  
and Radiological Devices  
510(k) Number K992677

Prescription Use ✓  
(Per 21 CFR 801.109)